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TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *

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|---|---|---|---|
| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | AUG 15 | CAOLD to be discontinued on December 31, 2008 |
| NEWS | 3 | OCT 07 | EPFULL enhanced with full implementation of EPC2000 |
| NEWS | 4 | OCT 07 | Multiple databases enhanced for more flexible patent number searching |
| NEWS | 5 | OCT 22 | Current-awareness alert (SDI) setup and editing enhanced |
| NEWS | 6 | OCT 22 | WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications |
| NEWS | 7 | OCT 24 | CHEMLIST enhanced with intermediate list of pre-registered REACH substances |
| NEWS | 8 | NOV 21 | CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present |
| NEWS | 9 | NOV 26 | MARPAT enhanced with FSORT command |
| NEWS | 10 | NOV 26 | MEDLINE year-end processing temporarily halts availability of new fully-indexed citations |
| NEWS | 11 | NOV 26 | CHEMSAFE now available on STN Easy |
| NEWS | 12 | NOV 26 | Two new SET commands increase convenience of STN searching |
| NEWS | 13 | DEC 01 | ChemPort single article sales feature unavailable |
| NEWS | 14 | DEC 12 | GBFULL now offers single source for full-text coverage of complete UK patent families |
| NEWS | 15 | DEC 17 | Fifty-one pharmaceutical ingredients added to PS |

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

| | |
|---|---|
| NEWS HOURS | STN Operating Hours Plus Help Desk Availability |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS IPC8 | For general information regarding STN implementation of IPC 8 |

Enter NEWS followed by the item number or name to see news on that
specific topic.



* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:34:41 ON 30 DEC 2008

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=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'REGISTRY' ENTERED AT 16:35:03 ON 30 DEC 2008
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

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TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> s lemuteporfin/cn
L1            1 LEMUTEPORFIN/CN

=> d l1

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   215808-49-4  REGISTRY
ED   Entered STN:  17 Dec 1998
CN   23H,25H-Benzo[b]porphine-9,13-dipropanoic acid,
     18-ethenyl-4,4a-dihydro-3,4-bis(methoxycarbonyl)-4a,8,14,19-tetramethyl-,
     9,13-bis(2-hydroxyethyl) ester  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   23H,25H-Benzo[b]porphine-9,13-dipropanoic acid,
     18-ethenyl-4,4a-dihydro-3,4-bis(methoxycarbonyl)-4a,8,14,19-tetramethyl-,
     bis(2-hydroxyethyl) ester (9CI)
OTHER NAMES:
CN   A-EA 6
CN   EA 6
CN   Lemuteporfin
CN   QLT 0074
MF   C44 H48 N4 O10
SR   CA
LC   STN Files:   ADISINSIGHT, BIOSIS, CA, CAPLUS, IMSDRUGNEWS, IMSRESEARCH,
       PROUSDDR, TOXCENTER, USAN, USPAT2, USPATFULL
```

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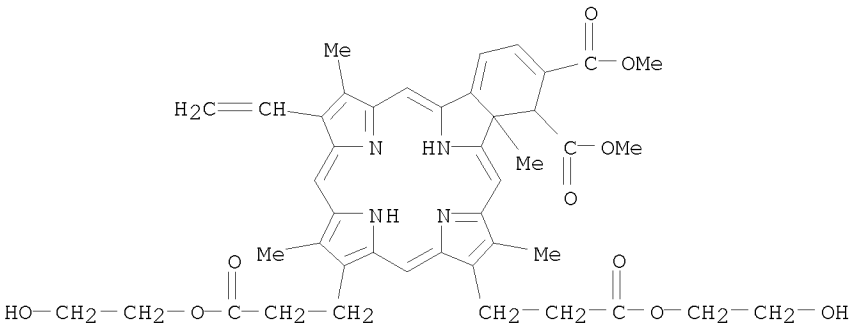

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

28 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
28 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> s vertporfin/cn
L2            0 VERTPORFIN/CN

=> s verteporfin/cn
L3            1 VERTEPORFIN/CN

=> d l3

L3   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   129497-78-5  REGISTRY
ED   Entered STN:  21 Sep 1990
CN   24H,26H-Benzo[b]porphine-9,13-dipropanoic acid,
     18-ethenyl-4,4a-dihydro-3,4-bis(methoxycarbonyl)-4a,8,14,19-tetramethyl-,
     monomethyl ester, (4R,4aS)-rel-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   23H,25H-Benzo[b]porphine-9,13-dipropanoic acid,
     18-ethenyl-4,4a-dihydro-3,4-bis(methoxycarbonyl)-4a,8,14,19-tetramethyl-,
     monomethyl ester, trans-
OTHER NAMES:
CN   BPD-MA
CN   CL 318952
CN   Verteporfin
CN   Visudyne
FS   STEREOSEARCH
DR   121987-00-6, 129162-83-0, 136415-38-8
MF   C41 H42 N4 O8
CI   IDS
SR   CA
LC   STN Files:   ADISINSIGHT, ADISNEWS, AGRICOLA, BIOSIS, CA, CAPLUS, CBNB,
       CHEMCATS, CIN, DDFU, DRUGU, EMBASE, IMSDRUGNEWS, IMSPATENTS, IMSPRODUCT,
       IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS,
       RTECS*, TOXCENTER, USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:   WHO

     CM   1

     CRN  121310-58-5
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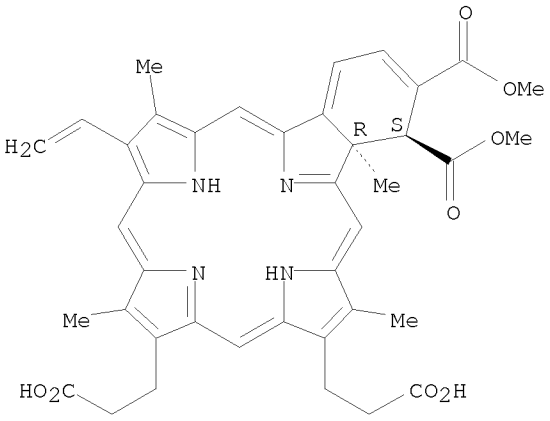
CMF C40 H40 N4 O8

Relative stereochemistry.




CM 2

CRN 67-56-1
CMF C H4 O

H3C—OH

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

524 REFERENCES IN FILE CA (1907 TO DATE)
25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
525 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file medicine
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 19.91 | 20.12 |

FILE 'ADISCTI' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'ADISINSIGHT' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'ADISNEWS' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'BIOSIS' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'BIOTECHNO' ENTERED AT 16:35:55 ON 30 DEC 2008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FILE 'NLDB' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'NUTRACEUT' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'PASCAL' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'PCTGEN' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'PHARMAML' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'PHIN' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'SCISEARCH' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'TOXCENTER' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'USGENE' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'USPATFULL' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'USPATOLD' ENTERED AT 16:35:55 ON 30 DEC 2008


FILE 'USPAT2' ENTERED AT 16:35:55 ON 30 DEC 2008


=> s l1 or lemuteporfin or qlt 0074
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L4 145 L1 OR LEMUTEPORFIN OR QLT 0074

=> s l3 or verteporfin or visudyne or CL 318952
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L5        8048 L3 OR VERTEPORFIN OR VISUDYNE OR CL 318952

=> s lipophilic
L6      204158 LIPOPHILIC

=> s acne or seborrheic dermatitis or hyperactive sebaceous gland or sebaceous gland
hyperplasia or seborrhea
L7      208769 ACNE OR SEBORRHEIC DERMATITIS OR HYPERACTIVE SEBACEOUS GLAND OR
               SEBACEOUS GLAND HYPERPLASIA OR SEBORRHEA

=> s l4 or l5
L8        8121 L4 OR L5

=> s l8 and l7
L9         209 L8 AND L7

=> s photodynamic therapy or PDT
L10      80855 PHOTODYNAMIC THERAPY OR PDT

=> s l9 and l10
L11         62 L9 AND L10

=> s hydrophobic
L12     898093 HYDROPHOBIC

=> s l5 or l12
L13     905604 L5 OR L12

=> s l11 and l13
L14         60 L11 AND L13

=> dup rem
ENTER L# LIST OR (END):l14
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGMONOG2,
IMSPRODUCT, KOSMET, NUTRACEUT, PCTGEN, PHARMAML, USGENE'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L14
L15          55 DUP REM L14 (5 DUPLICATES REMOVED)

=> s l15 and pd<2004
   5 FILES SEARCHED...
'2004' NOT A VALID FIELD CODE
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  14 FILES SEARCHED...
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  27 FILES SEARCHED...
'2004' NOT A VALID FIELD CODE
  31 FILES SEARCHED...
L16          9 L15 AND PD<2004

=> d l16 1-9 ibib, kwic

L16  ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2003:836896  CAPLUS
DOCUMENT NUMBER:         139:288313
TITLE:                   High fluence rate activation of photosensitizers for
                         dermatological applications
INVENTOR(S):             Geronemus, Roy G.; Alexiades-Armenakas, Macrene;
                         McMillan, Kathleen
PATENT ASSIGNEE(S):      Candela Corporation, USA
SOURCE:                  PCT Int. Appl., 30 pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2003086460         A2    20031023    WO 2003-US10418         20030404 <--
     WO 2003086460         A3    20031231
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003230808         A1    20031027    AU 2003-230808          20030404 <--
PRIORITY APPLN. INFO.:                       US 2002-370253P     P   20020405
                                             WO 2003-US10418     W   20030404
REFERENCE COUNT:         2     THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
PI   WO 2003086460 A2  20031023
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   WO 2003086460         A2    20031023    WO 2003-US10418         20030404 <--
     WO 2003086460         A3    20031231
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003230808         A1    20031027    AU 2003-230808          20030404 <--
AB   .  .  .  does not cause clin. signification side effects such as purpura
     of the treated skin.  Examples of photosensitizers used are
     δ-aminolevulinate,  verteporfin and hypericin for treatment
```

of actinic keratosis, acne, basal cell carcinoma, photoaged skin, and rosacea. The treatment is also suitable for hair removal.

ST skin disease photodynamic treatment; aging skin photodynamic therapy; hair removal photodynamic treatment

IT Acne
Antitumor agents
Eczema
Human
Hyperthermia (therapeutic)
Photodynamic therapy
Photosensitizers, pharmaceutical
Psoriasis
Radio wave
Skin, disease
Skin, neoplasm
Wart
(high fluence rate activation of photosensitizers for dermatol. applications)

IT Acne
(vulgaris; high fluence rate activation of photosensitizers for dermatol. applications)

IT 81-54-9D, Purpurin, derivs. 92-83-1D, Xanthene, derivs. 106-60-5, δ-Aminolevulinic acid 548-04-9, Hypericin 2683-78-5D, Bacteriochlorin, derivs. 20238-92-0, N-Acetyl δ-aminolevulinic acid 33320-16-0 73442-88-3 129497-78-5, Verteporfin 140898-98-2 149837-93-4D, Bacteriopurpurin, derivs. 186410-03-7 204326-60-3
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high fluence rate activation of photosensitizers for dermatol. applications)

L16 ANSWER 2 OF 9 COPYRIGHT 2008 Gale Group on STN

ACCESSION NUMBER: 2003:225291 NLDB
TITLE: OTHER NEWS TO NOTE.
SOURCE: BIOWORLD Today, (18 Nov 2003) .
PUBLISHER: Medical Economics/Thomson Healthcare
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 3388

SO BIOWORLD Today, (18 Nov 2003) .

TX Micrologix . . . from its Phase IIb study of MBI 594AN, a topical drug candidate under development as a first-in-class prescription treatment for acne. The Phase II study was designed to evaluate acne lesion count reductions at various time points (three, six, nine and 12 weeks), comparing MBI 594AN (1.25 percent and 2.5. . .

Miravant . . . cause of blindness in adults more than 50 years old. Safety data showed that the proposed clinical dose of SnET2-PhotoPoint photodynamic therapy was well tolerated and demonstrated a favorable profile in the study population.

QLT . . . American Academy of Ophthalmology meeting in Anaheim, Calif., showed that Macugen does not appear to provide an improvement over QLT's Visudyne Therapy for patients with choroidal neovascularization due to age-related macular degeneration. QLT noted that although complete data were not presented, the anti-VEGF aptamer data appear no better than Visudyne's original TAP data in all lesion types. Macugen (pegaptanib sodium) is under development by Eyetech Pharmaceuticals Inc., of New York,. . .

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L16 ANSWER 3 OF 9 COPYRIGHT 2008 Gale Group on STN

ACCESSION NUMBER: 2003:39128 NLDB
TITLE: Medical Review Criteria Guidelines for Managing Care.
SOURCE: M2 Presswire, (19 Feb 2003) .
PUBLISHER: M2 Communications Ltd.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 3984
SO M2 Presswire, (19 Feb 2003) .
TX Dermatology: Dermatology referral management; Acne vulgaris; Actinic keratosis; Alopecia areata; Atopic dermatitis; Basal cell carcinoma; Biopsy/excision of benign skin and subcutaneous lesions, Cysts involving the. . .

Laser . . . Micrographic Surgery; Pediculosis (`lice`); Photochemotherapy for the treatment of scleroderma, extracorporeal; Psoriasis; PUVA Therapy; Rosacea; Scabies; Sclerotherapy for varicose veins, Seborrheic dermatitis/`Dandruff`; Seborrheic keratosis; Squamous cell carcinoma; Tattoos; Verruca Vulgaris/ Warts; Vitiligo;

Age-related Macular Degeneration (AMD); Macular Degeneration, Radiation Treatment; Macular Fovea Translocation for AMD; Ocular Photodynamic Therapy (OPT) - Visudyne (Verteporfin) Therapy for Age-related Macular Degeneration; Opthalmoscopy, extended with retinal drawing Orbitotomy; Photocoagulation; Pterygium; Ptosis; Punctal dilation/snipping; Punctal Plugs and Punctoplasty. . . Thermal Therapy; Age- Related Macular Degeneration; Macular Degeneration, Laser Therapy; ar Degeneration, Radiation Treatment; Macular Fovea Translocation for AMD; Ocular Photodynamic Therapy (OPT) - Visudyne (Verteporfin) Therapy for Age-related Macular Degeneration; Viscocanalostomy; Visual Field Testing; Visual training (Orthoptics); Visual Rehabilitation Program; Vitrectomy; Referral criteria summary sheet/grid. . .

L16 ANSWER 4 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2003:300363 USPATFULL
TITLE: Keptin-a novel keratinocyte-specific proteinase inhibitor
INVENTOR(S): Ariizumi, Kiyoshi, Plano, TX, UNITED STATES
Cruz, Ponciano D., Dallas, TX, UNITED STATES
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System (U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 20030211587 | A1 | 20031113 | <-- |
| APPLICATION INFO.: | US 2002-141530 | A1 | 20020507 (10) | |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Steven L. Highlander, FULBRIGHT & JAWORSKI L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX, 78701
NUMBER OF CLAIMS: 47
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 1770
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . dermatitis, cutaneous basal cell carcinoma, cutaneous planocellular carcinoma, wart, lameliar ichthyosis, epidemolytic keratosis, solar induced precancerous keratosis, benign keratosis, ache, seborrheic dermatitis, keloids, pityriasis rubra pilaris ("PRP"), dermatomyositis, and angiogenesis-related skin disorders.

DETD . . . weight protein of 12.5 kDa containing no cysteine residues which suggests the formation of a three dimensional structure by leucine-based hydrophobic interactions.

DETD . . . amino acids: serine (+0.3), asparagine (+0.2), glutamine (+0.2), and threonine (-0.4), sulfur containing amino acids: cysteine (-1.0) and methionine (-1.3); hydrophobic, nonaromatic amino acids: valine (-1.5), leucine (-1.8), isoleucine (-1.8), proline (-0.5±1), alanine (-0.5), and glycine (0); hydrophobic, aromatic amino acids: tryptophan (-3.4), phenylalanine (-2.5), and tyrosine (-2.3).

DETD . . . dermatitis, cutaneous basal cell carcinoma, cutaneous planocellular carcinoma, wart, lameliar ichthyosis, epidemolytic keratosis, solar induced precancerous keratosis, benign keratosis, ache, seborrheic dermatitis, keloids, pityriasis rubra pilaris ("PRP"), dermatomyositis, angiogenesis-related skin disorders, erysipleas, and erythroderma.

DETD [0113] 5. Phototherapy (UV Irradiation) and Photodynamic Therapy

DETD [0115] Photodynamic therapy (also known as "PDT") involves the administration of a drug followed by light exposure. In PDT, drugs known as porphyrins are administered intravenously into the body to sensitize diseased tissue to visible light. Forms of porphyrin are well known, they include hematoporphyrin derivative (HPD) and porfimer sodium (Photofrin®) and BPD verteporfin.

DETD . . . invention, it is contemplated that a nucleic acid segment encoding a keptin may be used in combination with photochemotherapy and photodynamic therapy.

L16 ANSWER 5 OF 9 USPATFULL on STN

ACCESSION NUMBER: 2003:153401 USPATFULL

TITLE: Metallotetrapyrrolic photosensitizing agents for use in photodynamic therapy

INVENTOR(S): Robinson, Byron C., Santa Barbara, CA, UNITED STATES
Leitch, Ian M., Goleta, CA, UNITED STATES
Greene, Stephanie, Goleta, CA, UNITED STATES
Rychnovsky, Steve, Santa Barbara, CA, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 20030105069 | A1 | 20030605 | <-- |
| | US 6827926 | B2 | 20041207 | |
| APPLICATION INFO.: | US 2002-159005 | A1 | 20020531 (10) | |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2001-295345P | 20010531 (60) |

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Finnegan, Henderson, Farabow,, Garrett & Dunner, L.L.P., 1300 I Street, N.W., Washington, DC, 20005-3315

NUMBER OF CLAIMS: 78

EXEMPLARY CLAIM: 1

LINE COUNT: 7007

10588419

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Metallotetrapyrrolic photosensitizing agents for use in photodynamic therapy

SUMM [0002] This invention relates to metallotetrapyrrolic compounds having phototherapeutic properties utilizable in photodynamic therapy for photodetection and phototherapy of target tissues.

SUMM [0004] Photodynamic therapy ("PDT") is a new modality for the treatment of malignancies, diseased tissue, hyperproliferating tissues, normal tissues or pathogens. PDT involves a localized or systemic administration of a photosensitizing compound followed by exposure of target tissue to photoactivating light. The. . .

SUMM [0006] An emerging clinical role for photodynamic therapy is in the treatment of proliferative cardiovascular diseases such as atherosclerosis, restenosis and vein graft disease. Atherosclerosis is a disease. . .

SUMM [0014] Recently, vascular photodynamic therapy has shown promise for the prevention of injury-induced neointimal hyperplasia in animal studies and has entered phase I/II clinical trials. . .

SUMM . . . cardiovascular field, mostly in preclinical animal models. Such photosensitizers include Photofrin, 5-amino-levulinic acid (protoporphyrin IX precursor), tin ethyl etiopurpurin (SnET2), Visudyne® (Benzoporphyrin derivative), Antrin®, Optrin® (Lutetium texaphyrin), mono-aspartyl chlorin e6 (MACE), and pheophorbide PH1126. All of these synthetic compounds were designed. . .

SUMM [0016] The excitation light source for PDT (usually diode lasers or dye lasers) has historically been matched to the far-red absorption bandwidth of the photosensitizer to maximize. . .

SUMM [0017] Enthusiasm for photoangioplasty (PDT of vascular de novo atherosclerotic, restenotic lesions and vein graft intimal hyperplasia) is fueled by more effective second-generation photosensitizers that. . .

SUMM . . . than 600 nm in the cardiovascular field. This may have been true several years ago when balloon catheter technology in PDT was not as advanced as it is today. New endovascular light ballon catheters, however, can remove most of the blood. . .

SUMM [0020] The use of wavelengths of light lower than 600 nm offers significant advantages in PDT because such wavelengths have penetration characteristics that deliver the PDT effect to the target sites (media and adventicia layers of the vessel) and not to myocardial tissue. Thus, effective therapy can be afforded at the target site, while deeper tissues are shielded from a PDT response by blood absorption within these tissues. Previously reported cardiovascular experiments performed to date on tetrapyrrolic molecules have been done. . .

SUMM . . . lasers are available. At other wavelengths (besides blue)<600 nm-only dye lasers exist to supply enough light power to undertake a PDT treatment. These are particularly useful at 580 nm. Blue lasers are available, and even though most of the photosensitizers that. . .

SUMM . . . and vein graft hyperproliferation. Additionally, as more disease indications are realized, shorter wavelength light may be equally important in other PDT applications that only require short wavelength excitation to effect a therapy. Such applications may be in hollow organ disease (for example, lung cancers and barrets esophagus), and in diseases of the skin (for example, psoriasis, actinic keratosis, and acne vulgaris).

SUMM . . . to produce a gallium tetrapyrrolic complex, unexpectedly markedly enhances the uptake and biological efficacy of the compounds as photosensitizers for PDT of cardiovascular diseases when compared to the corresponding tetrapyrrolic compounds having other metal types coordinated to their central cavity. Additionally,. . .

SUMM [0027] The invention also provides new methods of treating cardiovascular diseases with PDT utilizing light at shorter wavelengths with the new metallated porphyrins of the invention, thus minimizing damage to the myocardial or. . .

SUMM [0028] The invention further provides new photosensitizers that may be used in short wavelength applications in photodynamic therapy to treat diseases other than cardiovascular diseases.

SUMM . . . the present invention, in one aspect, provides phototherapeutic compositions of metallotetrapyrrolic compounds of formula I which may be used in photodynamic therapy or in a medicament for treatment of diseases such as cardiovascular diseases: ##STR1##

SUMM . . . of the invention, provided are phototherapeutic compositions of metallo-tetrapyrrolic compounds of formula II that may be useful as photosensitizers in photodynamic therapy or in a medicament for treatment of diseases such as cardiovascular diseases: ##STR4##

SUMM . . . accordance with the present invention, provided are phototherapeutic compositions of metallo-tetrapyrrolic compounds of formula III which may be useful in photodynamic therapy or in a medicament for treatment of diseases such as cardiovascular diseases: ##STR6##

SUMM . . . accordance with the present invention, provided are phototherapeutic compositions of metallo-tetrapyrrolic compounds of formula IV which may be used in photodynamic therapy or in a medicament for treatment of diseases such as cardiovascular diseases: ##STR8##

SUMM . . . synthetic routes to novel tetrapyrrolic molecules of interest in treating diseases of the cardiovascular system and other diseases applicable to PDT. Such derivatives are of particular interest because all display absorption maximas at wavelengths at or near 400 nm, 532 nm. . .

SUMM . . . hydroxylated residue is present. The new porphyrins themselves may be photodynamically active as metal free analogs and therefore useful as PDT agents. However, metallated derivatives of these compounds are of particular interest in treatment of cardiovascular disease and normal or abnormal. . .

SUMM . . . hydroxylated residue is present. The new porphyrins themselves may be photodynamically active as metal free analogs and therefore useful as PDT agents. However, metallated derivatives of these compounds are of particular interest in treatment of cardiovascular disease and normal or abnormal. . .

SUMM [0194] 12 week old female albino Hartley guinea pigs (Simonsen:Sim HA) (n=3) were used to assess the effects of photodynamic therapy with the gallium tetrapyrroles in gel vehicle applied to the skin. Gallium tetrapyrroles in gel vehicle were administered at 0.1. . .

SUMM [0196] 12 week old male Sprague Dawley rats (Harlan) (n=11) were used to assess the effects of photodynamic therapy with gallium tetrapyrroles (121, 15, 66) in gel vehicle applied to the skin. Gallium tetrapyrroles in gel vehicle were administered. . .

SUMM . . . pigmentation, urticaria, allegenic reactions, chronic proliferative dermatitis, chronic ulcerative dermatitis, disorders of hair or hair follicles, disorders of skin pigmentation, acne, cutaneous infections, skin tumors, seborrheic dermatitis, cutaneous vasculitis, erythema multiforme and

nodosum.

SUMM . . . and examined by light microscopy to histologically assess the cell population density in the medial and adventitial layers of the PDT-treated vessel wall. Tables 3, 4, 5 and 6 contain results expressed as the % maximum accellularity (depletion of cell population. . .

SUMM . . . G. D., Crocker, I. R., Scott, N. A. King, S. B., Wilcox, J. N., Circulation, 96, 1944-1952, 1997). If vascular PDT is to be proposed as a therapy to prevent restenosis in humans due to angioplasty or stenting, then it must. . .

SUMM . . . irradiance) arteries. In another set of experiments, animals also received balloon injuries in the coronary arteries at the time of PDT treatment. Angioplasty injuries in 2 coronary arteries were performed. Vital signs and cardiovascular parameters such as ECG, HR, BP, were. . .

SUMM [0221] For acute experiments done in uninjured arteries, 3-5 days after the PDT experiments, animals were sacrificed and serial sections of all relevant arteries (iliacs, & coronaries) were harvested in 10% formalin and processed for histological assessment. Results of PDT at this timepoint give us an insight into the selective cellular effects of PDT on VSMC and myofibroblasts which are known to be maximally proliferating and migrating at this same time in response to. . .

SUMM [0222] For longer term efficacy experiments (14 days after the PDT experiments) animals were sacrificed and serial sections of all relevant arteries (coronaries only) were harvested in 10% formalin and processed. . . neointimal formation. The magnitude of the inhibition was greater than any other photosensitizer drug currently used by other groups in PDT (clinically or pre-clinically), and was on the order of that only previously seen with radiation in this model. Inhibition data. . .

SUMM . . . no observed normal skin response at the drug doses used. It has also been noted that significant acellularity occurs following PDT treatment of rat arteries with water soluble gallium azaporphyrins and gallium porphyrins at longer treatment times post injection (16, 24. . .

SUMM . . . vascular brachytherapy and to our knowledge are dramatically better than any other photosensitizers described to date in vascular studies with PDT.

SUMM . . . vascular brachytherapy and to our knowledge are dramatically better than any other photosensitizer described to date in vascular studies with PDT.

SUMM . . . for example, arc lamps, LEDs or lasers at a certain frequency in the visible spectrum or near infrared for typical PDT treatments. In particular, wavelengths between 400 nm and 900 nm, corresponding to laser diode activation, may also be used. Additionally. . .

CLM What is claimed:

. . . pigmentation, urticaria, allegenic reactions, chronic proliferative dermatitis, chronic ulcerative dermatitis, disorders of hair or hair follicles, disorders of skin pigmentation, acne, cutaneous infections, skin tumors, seborrheic dermatitis, cutaneous vasculitis, erythema multiforme or nodosum.

L16 ANSWER 6 OF 9 USPATFULL on STN
ACCESSION NUMBER: 2003:147005 USPATFULL
TITLE: Substituted porphyrin and azaporphyrin derivatives and their use in photodynamic therapy, radioimaging and MRI diagnosis

10588419

INVENTOR(S): Robinson, Byron C., Santa Barbara, CA, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 20030100752 | A1 | 20030529 | <-- |
| | US 6906050 | B2 | 20050614 | |
| APPLICATION INFO.: | US 2002-159580 | A1 | 20020531 (10) | |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2001-295343P | 20010531 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Finnegan, Henderson, Farabow,, Garrett & Dunner, LLP, 1300 I Street, N.W., Washington, DC, 20005-3315
NUMBER OF CLAIMS: 120
EXEMPLARY CLAIM: 1
LINE COUNT: 4498
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Substituted porphyrin and azaporphyrin derivatives and their use in photodynamic therapy, radioimaging and MRI diagnosis

AB . . . azaporphyrin deviations with various substitutents in the 12- and 17-positions of the porphyrin skeleton as pharmaceutical agents for use in photodynamic therapy, MRI diagnosis, and radiodiagnostics.

SUMM . . . derivatives with various substituents in the 13- and 17-positions of the porphyrin skeleton suitable as pharmaceutical agents for use in photodynamic therapy, MRI diagnosis, and radiodiagnostics. The invention is also directed to pharmaceutical agents that contain these compounds, as well as a. . .

SUMM [0002] Photodynamic therapy ("PDT") is a new modality for the treatment of malignancies, diseased tissue, hyperproliferating tissues, pathogens or unwanted normal tissues. PDT involves a localized or systemic administration of a photosensitizing compound followed by exposure of target tissue to photoactivating light. The. . .

SUMM [0004] Porphyrins and azaporphyrins and their metallated derivatives belong to a family of substances that are suitable for PDT. These compounds accumulate in target tissues and absorb light in a range in which living tissue is still fairly permeable,. . . have been developed largely for use in oncological applications, but have also been examined in other disease areas in the PDT field in humans. (WO 92/06097; WO 97/20846; EP 0 811626; U.S. Pat. Nos. 5,633,275, 5,654,423, 5,675,001, 5,703,230, and 5,705,622). Such photosensitizers include Photofrin (U.S. Pat. No. 4,882,234), 5-aminolevulinic acid (protoporphyrin IX precursor), SnET2, Visudyne® (Benzoporphyrin derivative), Antrin®, Optrin® (Lutetium texaphyrin) and mono-aspartyl chlorin e6 (MACE). All of these compounds were designed specifically for the. . .

SUMM . . . than 600 nm in the cardiovascular field. This may have been true several years ago when balloon catheter technology in PDT was not as advanced as it is today. New endovascular light ballon catheters, however, can remove most of the blood. . .

SUMM [0008] The use of wavelengths of light lower than 600 nm offers significant advantages in PDT because such wavelengths have penetration characteristics that deliver the PDT effect to the target sites (media and adventicia layers of the vessel) and not to myocardial tissue. Thus, effective therapy can be afforded at the target site, while deeper tissues are shielded from a PDT response by

blood absorption within these tissues. Previously reported cardiovascular experiments performed to date on tetrapyrrolic molecules have been done. . .

SUMM . . . However, the compounds so far described are far from being able to satisfactorily meet the desired requirements to be effective PDT, MRI and radiodiagnostic imaging agents.

SUMM . . . providing metalloporphyrin amide linkages. However, all of these approaches using deuteroporphyrins are suboptimal with respect to design of short wavelength PDT photosensitizers for use as MRI or radiodiagnostic agents for reasons detailed below.

SUMM [0015] Sakata's porphyrin-based PDT/MRI/radiodiagnostic compounds are based on a naturally occurring asymmetrical porphyrin ring system shown in FIG. 1.

SUMM . . . absorptions at about 532 and 575 nm with molar extinction coefficients of between 15,000-20,000 M.sup.-1 cm.sup.-1. In the field of photodynamic therapy, the depth of light penetration into tissues is a function of the wavelength of the exciting light. The theoretical efficacy. . .

SUMM . . . the properties and uses of the compounds clinically for not only MRI and radiodiagnostic imaging, but also for treatment using photodynamic therapy.

SUMM . . . found novel metal-free or metallated functionalized phototherapeutic agents that may be used for imaging (MRI or radiodiagnostic) before or after photodynamic therapy . These novel phototherapeutic agents are based on tetrapyrrolic ring systems such as the porphyrins and azaporphyrins that can be covalently linked by stable linkages to metal complexing agents. These new photosensitizers are useful in short wavelength applications in photodynamic therapy.

SUMM . . . in one aspect provides phototherapeutic compositions of metallotetrapyrrolic compounds of formula I which may be used as MRI, radiodiagnostic and PDT agents: ##STR2##

SUMM . . . provided are phototherapeutic, MRI and radiodiagnostic compositions of metallo-tetrapyrrolic compounds of formula II that may be used as photosensitizers in photodynamic therapy: ##STR8##

SUMM . . . present invention, provided are phototherapeutic compositions of metallo-tetrapyrrolic compounds of formula III that may be used as MRI, radiodiagnostic, or PDT agents: ##STR12##

SUMM . . . the invention, provided are phototherapeutic compositions of metallo-tetrapyrrolic compounds of formula IV that may be used as MRI, radiodiagnostic, or PDT agents: ##STR16##

SUMM . . . the metal co-ordination compound. The new porphyrins themselves may be photodynamically active as metal free analogs and therefore useful as PDT agents. In addition, metallated derivatives of these compounds are also of particular interest for treatment and diagnosis of disorders of. . .

SUMM [0182] In accordance with the invention, the porphyrin or azaporphyrin linked MCR compounds can then be modified to produce PDT/MRI radiodiagnostic compounds. If the compounds are to be used for NMR diagnosis, paramagnetic metal ions must be present in the. . .

SUMM [0183] For the use of the agents according to the invention for photodynamic therapy, the porphyrin or azaporphyrin compound should be metal free, i.e, M=2H, or should have coordinated photoactive metals, preferred examples of. . .

SUMM . . . and are generally dosed in amounts of 0.01 μmol to 2 mmol/kg of body weight, both for their use in PDT and for therapy monitoring using MRI diagnosis. They are intended for enteral and parenteral administration or are administered with the. . .

SUMM [0194] The agents according to the invention are especially suitable for

PDT and as MRI contrast media. After administration, they can enhance the informational value of the image that is obtained from. . .

SUMM . . . in addition to therapeutics. Additionally, as more disease indications are realized, shorter wavelength light may be equally important in other PDT applications that only require short wavelength excitation to effect a therapy. Such applications may be, for example, in hollow organ disease (for example lung cancers, barrets esophagus), or in diseases of the skin (for example psoriasis, actinic keratosis, acne vulgaris). The invention disclosed herein describes the synthesis of metallated photosensitizers having ring systems that have shown excellent efficacy in. . . clearance characteristics and low toxicity. (See co-pending application filed on May 31, 2001 entitled "Metallotetrapyrrolic Photosensitizing Agents For Use In Photodynamic Therapy," inventors Byron C. Robinson, Ian M. Leitch, Stephanie Greene, and Steve Rychnovsky, Attorney Docket No. 07328-0015.)

SUMM [0250] The compounds of the invention are intended for use not only for effective photodynamic therapy treatment but also as MRI and radiodiagnostic diagostic agents. Such compounds may be used to diagnose, locate or treat cardiovascular. . .

L16 ANSWER 7 OF 9 USPATFULL on STN

| | | | | |
|---|---|---|---|---|
| ACCESSION NUMBER: | 2003:44768 USPATFULL | | | |
| TITLE: | Methods and compositions for the treatment of macular and retinal degenerations | | | |
| INVENTOR(S): | Travis, Gabriel H., Los Angeles, CA, UNITED STATES | | | |
| PATENT ASSIGNEE(S): | Board of Regents, The University of Texas System (U.S. corporation) | | | |
| | NUMBER | KIND | DATE | |
| PATENT INFORMATION: | US 20030032078 | A1 | 20030213 | <-- |
| APPLICATION INFO.: | US 2001-885303 | A1 | 20010619 | (9) |
| | NUMBER | | DATE | |
| PRIORITY INFORMATION: | US 2001-263837P | | 20010123 | (60) |
| DOCUMENT TYPE: | Utility | | | |
| FILE SEGMENT: | APPLICATION | | | |
| LEGAL REPRESENTATIVE: | Gina N. Shishima, Fulbright & Jaworski L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX, 78701 | | | |
| NUMBER OF CLAIMS: | 53 | | | |
| EXEMPLARY CLAIM: | 1 | | | |
| NUMBER OF DRAWINGS: | 7 Drawing Page(s) | | | |
| LINE COUNT: | 7372 | | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . for the prevention and treatment of macular and retinal degeneration. Early detection of macular degeneration is also becoming increasingly important. Photodynamic therapy, a surgical treatment for some cases of macular degeneration, is only beneficial before extensive vision loss has occurred (Bressler, et. . .

SUMM . . . other length of time wherein repeating the therapy is necessary. In some embodiments, surgery such as laser photocoagulation therapy or photodynamic therapy may be performed on the subject or an anti-angiogenic factor may be administered to the subject. An "effective amount" refers. . .

DETD . . . phosphodiester backbone moiety used for improved nuclease

resistance, cellular uptake and regulating RNA expression; U.S. Pat. No. 5,858,988 which describes hydrophobic carrier agent attached to the 2'-O position of oligonucleotides to enhanced their membrane permeability and stability; U.S. Pat. No. 5,214,136. . .

DETD [0408] Treatments developed that reduce the risk of vision loss in selected patients with "wet" macular degeneration include photocoagulation and photodynamic therapy. These therapies may be used in conjunction with a therapeutic agent which has been through screening using a dehydrogenase.

DETD [0410] Photodynamic therapy, allows for the treatment of patients with neovascular macular degeneration having vessels extending under the center of the retina. Photodynamic therapy uses the drug verteporfin, and has recently been shown to reduce the risk of moderate and severe vision loss (Treatment of Age-Related Macular Degeneration with Photodynamic Therapy (TAP) Study Group, 1999, 2000) In photodynamic therapy, a photoactivator, verteporfin, is injected into a patients vein where it then travels to the eye and becomes concentrated within the neovascular lesion. Then a laser is applied over the entire neovascular lesion to activate the drug. The photoactivated verteporfin selectively destroys lesions by creating reactive intermediates of oxygen such as superoxide and hydroxide radicals without damaging viable retinal tissue. . . et al., 2000). Retreatment as often as every three months are needed to prevent significant growth. The laser used in photodynamic therapy is not a "heat producing" laser as used in photocoagulation. Generally, this therapy works for blood vessels that are not. . . fluid in growths wherein the neovascularization is less than about 50% (www.macular-degeneration.org/porphyrin/porphyrin.html). Clinical trials have shown that photo-dynamic therapy with verteporfin could reduce the risk of moderate and severe vision loss from 61% to 33% at one year and from 69%. . .

DETD . . . of 11cRDH in RPE cells (Law et al., 1989; Gamble et al., 1999). This drug is used clinically to treat acne because of unrelated effects on sebaceous glands. Night blindness is a common side effect of isotretinoin due to impaired regeneration. . .

DETD . . . optimal dose of isotretinoin to block formation of A2E in abcr-/- mice can be determined. The recommended dose for treating acne is 0.5 to 2.0 mg/kg/day. The observation of occasional night blindness in humans suggests significant impairment of rhodopsin regeneration at. . . in RPE tissue should be achieved at doses similar to, or possibly below, human therapeutic doses for the treatment of acne. The effects of isotretinoin on atRAL in retinas from light-adapted mice would preferably be determined at doses that bracket the. . .

DETD [0501] Bressler N M, Gills J P. Age related macular degeneration. New hope for a common problem comes from photodynamic therapy. BMJ Dec. 9, 2000;321(7274):1425-1427.

DETD [0584] Hasan T, Schmidt-Erfurth U. Mechanisms of action of photodynamic therapy with verteporfin for the treatment of age-related macular degeneration. Surv Ophthalmol (in press).

DETD [0800] Treatment of Age-Related Macular Degeneration with Photodynamic Therapy (TAP) Study Group. Verteporfin (VisudyneJ) therapy of subfoveal choroidal neovascularization in age-related macular degeneration. One year results of two randomized clinical trials: TAP report. . .

DETD [0801] Treatment of Age-Related Macular Degeneration With Photodynamic Therapy (TAP) Study Group. Photodynamic therapy of subfoveal choroidal

neovascularization in age-related macular degeneration with verteporfin: two-year results of 2 randomized clinical trials: TAP report No 2. Arch Ophthalmol (in press).

CLM What is claimed is:

52. The method of claim 39, further comprising performing photodynamic therapy on the subject.

L16 ANSWER 8 OF 9 USPATFULL on STN

| | |
|---|---|
| ACCESSION NUMBER: | 2001:124629 USPATFULL |
| TITLE: | Photoactivation of endogenous porphyrins for treatment of psoriasis |
| INVENTOR(S): | Lui, Harvey, Vancouver, Canada<br>Macaulay, Calum, Vancouver, Canada<br>Zeng, Haishan, Delta, Canada<br>McLean, David I., Vancouver, Canada<br>Bissonnette, Robert, Vancouver, Canada |
| PATENT ASSIGNEE(S): | The University of British Columbia, Vancouver, Canada (non-U.S. corporation) |

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 6269818 | B1 | 20010807 | <-- |
| APPLICATION INFO.: | US 1998-84865 | | 19980526 (9) | |

| | |
|---|---|
| DOCUMENT TYPE: | Utility |
| FILE SEGMENT: | GRANTED |
| PRIMARY EXAMINER: | Peffley, Michael |
| ASSISTANT EXAMINER: | Kearney, R. |
| LEGAL REPRESENTATIVE: | Townsend and Townsend and Crew LLP |
| NUMBER OF CLAIMS: | 19 |
| EXEMPLARY CLAIM: | 1 |
| NUMBER OF DRAWINGS: | 21 Drawing Figure(s); 11 Drawing Page(s) |
| LINE COUNT: | 1053 |

SUMM Autofluorescence photographic images have been used to evaluate treatment responses in acne (Lucchina et al 1996, Martin R. J. et al 1973). Analysis and comparison of emission spectra has also been studied. . .

SUMM . . . under Wood's lamp illumination was reported as early as 1927 (Bommer, 1927), and has been linked to the presence in acne of porphyrins generated by Propionibacterium acnes (Cornelius, 1967; McGinley, 1980; Lee et al 1978; Konig et al, 1992; Johnson, 1987;. . .

SUMM Macrospectrophotometry may be used to detect skin porphyrin in patients receiving exogenous porphyrins, or porphyrin precursors, for photodynamic therapy, and to follow the time course accumulation of porphyrins in photodynamic therapy (Lui, 1996; Rhodes, 1997; Stringer, 1996). The intensity of the fluorescence emission peaks has been shown to correlate with the. . .

SUMM . . . (Arakane et al., 1996). The toxicity generated by light activation of pharmacologically elevated levels of porphyrins is the basis for photodynamic therapy which may be used to treat a variety of conditions, including cancer (see U.S. Pat. Nos. 5,211,938; 5,234,940; 5,079,262; all. . .

SUMM . . . Goerz et al., 1995, report that skin does not normally contain sufficient levels of porphyrins to allow one to perform photodynamic therapy, and consequently photodynamic therapy requires exogenous addition of photosensitizer.

DETD TABLE II

Clinical diagnosis of patients studied

| Diagnosis | Number of Patients |
|---|---|
| Psoriasis | 70 |
| Contact dermatitis | 11 |
| Atopic dermatitis | 3 |
| Seborrheic dermatitis | 2 |
| Acne | 10 |
| Wart | 12 |
| Actinic keratosis | 18 |
| Port wine stain | 3 |
| Porokeratosis | 3 |
| Discoid lupus erythematosus | 2 |
| Rosacea | 3 |

Sebaceous hyperplasia. . .

DETD Boehncke, W. H., Sterry, W. & Kaufmann, R. (1994). Treatment of psoriasis by topical photodynamic therapy with polychromatic light [letter]. Lancet, 343:801.

DETD Goff, B. A., Bachor, R., Kollias, N. & Hasan, T. (1992). Effects of photodynamic therapy with topical application of 5-aminolevulinic acid on normal skin of hairless guinea pigs. Journal of Photochemistry & Photobiology. B -. . .

DETD Gudgin Dickson, E. F. & Pottier, R. H. (1995). On the role of protoporphyrin IX photoproducts in photodynamic therapy [news]. Journal of Photochemistry & Photobiology, B - Biology, 29:91-3.

DETD . . . In-vivo fluorescence detection and imaging of porphyrin-producing bacteria in the human skin and in the oral cavity for diagnosis of acne vulgaris, caries, and squamous cell carcinoma. SPIE 2135:129.

DETD Lucchina, L. et al. (1996). Fluorescence photography n the evaluation of acne. J. Am Acad Dermatol 35:58-63.

DETD . . . H., Zeng, H., McLean, D. I., MacAulay, C. E. & Palcic, B. (1996). In vivo fluorescence spectroscopy monitoring of BPD verteporfin concentration changes in skin tissue during photodynamic skin cancern. Journal of Dermatological Science, 12:87.

DETD Nelson, L. S. et al. (1985). Tropical 5-aminolevulinic acid (ALA) for the photodynamic therapy of psoriasis and actinic keratoses. Am. Soc. For Laser Medicine and Surgery Abstracts, p. 43, Abstract 202.

DETD . . . (1996). The accumulation of Protoporphyrin Ix in Plaque Psoriasis After Topical Application of 5-Aminolevulinic Acid Indicated a Potential For superficial Photodynamic Therapy. Journal of Investigative Dermatology, 107:76-81.

DETD Szeimies, R., Calzavara-Pinton, P., Karrer, S., Ortel, B. and Landthaler, M. (1996). Topical photodynamic therapy in dermatology. J. of photochemistry and photobiology 36:213-219.

DETD Tan, W. C., Krasner, N., O'Toole, P. and Lombard, M. (1997). Enhancement of photodynamic therapy in gastric cancer cells by removal of iron. Gut 41:14-18.

L16 ANSWER 9 OF 9 USPATFULL on STN

ACCESSION NUMBER: 93:69868 USPATFULL

TITLE: Compositions for photodynamic therapy

INVENTOR(S): Liu, Daniel, Vancouver, Canada
Jiang, Frank, Vancouver, Canada
Hobbs, John, Vancouver, Canada

PATENT ASSIGNEE(S): Quadra Logic Technologies Inc., Vancouver, Canada (non-U.S. corporation)

| NUMBER | KIND | DATE |
|---|---|---|

10588419

PATENT INFORMATION: US 5238940 19930824 <--
APPLICATION INFO.: US 1991-768810 19910930 (7)
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1990-498042, filed on 22 Mar 1990, now patented, Pat. No. US 5053423
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Raymond, Richard L.
LEGAL REPRESENTATIVE: Morrison & Foerster
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 24 Drawing Figure(s); 16 Drawing Page(s)
LINE COUNT: 1191
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Compositions for photodynamic therapy

SUMM The present invention relates to methods to prepare pharmaceutical compositions useful in photodynamic therapy. More specifically, the invention concerns conjugates of porphyrin-type photosensitizers with hydrophilic polymers as active ingredients in compositions which can be. . .

SUMM The products of the invention method are pharmaceutical compositions useful in photodynamic therapy or related methodologies, which compositions contain as an active ingredient a conjugate of a porphyrin-type photosensitizer with a water soluble,. . .

DETD An additional group of compounds which has been found extremely useful in photodynamic therapy and related methodologies is the green porphyrin (Gp) group having the basic structure outlined in FIG. 1. These compounds are. . .

DETD . . . solid tumors, dissolution of plaques in blood vessels (see, e.g., U.S. Pat. No. 4,512,762); treatment of topical conditions such as acne, athlete's foot, warts, papilloma, and psoriasis and treatment of biological products (such as blood for transfusion) for infectious agents, since. . .

IT 9002-89-5D, modified, conjugates with porphyrin derivs. 87806-31-3D, Photofrin II, conjugates with modified polyvinyl alc. 129497-78-5D, conjugates with modified polyvinyl alc.
(as photosensitizer for photodynamic therapy)